

ABSTRACT OF THE DISCLOSURE

The present invention provides a soldering iron with a graphite tip having two separate halves that are electrically isolated from one another. When both halves of the tip are applied to an electrically conductive material, such as the material to be soldered, an electrical circuit between the tip halves and an electrical power source is completed. 5 Therefore, the tip can reach operating temperatures quickly. When the tip is removed from the joint, the electrical circuit is broken and the tip material may quickly cool to a temperature safe for human contact. The tip material permits higher power outputs than other battery operated portable soldering irons and permits over 300 joints for each full 10 charge.